

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---------------------|------------------------------|------------------|---------|------------------|
| S1 | 0 | ("de3117374").PN. | USPAT; USOCR | OR | OFF | 2006/09/21 13:47 |
| S2 | 2 | ("3117374").PN. | USPAT; USOCR | OR | OFF | 2006/09/21 13:48 |
| S3 | 2 | ("3117374").PN. | DERWENT | OR | OFF | 2006/09/21 16:08 |
| S4 | 396 | fuel (animal fat) | US-PGPUB; USPAT; USOCR | WITH | ON | 2006/09/22 08:23 |
| S6 | 0 | WO-0340268-\$.DID. | EPO; DERWENT | OR | OFF | 2006/09/21 17:23 |
| S7 | 0 | WO-03040268-\$.DID. | EPO; DERWENT | OR | OFF | 2006/09/21 17:23 |
| S8 | 323 | fuel (animal fat) | USPAT; USOCR | WITH | ON | 2006/09/22 08:24 |
| S9 | 92 | fuel (animal fat) | EPO; JPO; DERWENT | WITH | ON | 2006/09/22 08:24 |

EAST Search History

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|-----|----|---|---|----|-----|------------------|
| S10 | 56 | (US-20060201056-\$ or US-20060155138-\$ or US-20060107972-\$ or US-20060063242-\$ or US-20060063241-\$ or US-20060063118-\$ or US-20060059768-\$ or US-20060058403-\$ or US-20060053791-\$ or US-20060021277-\$ or US-20050232956-\$ or US-20060008887-\$ or US-20050268535-\$ or US-20050142250-\$ or US-20050223627-\$ or US-20050172546-\$ or US-20050160663-\$ or US-20050081436-\$ or US-20050120620-\$ or US-20050113467-\$ or US-20050108927-\$ or US-20050107624-\$ or US-20050020842-\$ or US-20050011112-\$ or US-20040231233-\$ or US-20040186307-\$).did. or (US-20030111410-\$ or US-20020189243-\$).did. or (US-6982155-\$ or US-6288251-\$ or US-6887283-\$ or US-6824682-\$ or US-6694928-\$ or US-5705722-\$ or US-5730029-\$ or US-5609768-\$ or US-5578090-\$ or US-5527449-\$ or US-5434279-\$ or US-5269939-\$ or US-4828577-\$ or US-4608120-\$ or US-4518458-\$ or US-RE31185-\$ or US-4013621-\$ or US-4013516-\$ or US-3950230-\$).did. or (US-2980519-\$ or US-2862976-\$ or US-2249675-\$).did. or (WO-2005017075-\$ or EP-1357277-\$ or EP-1241406-\$ or WO-2068565-\$).did. or (JP-2005325323-\$ or JP-04222311-\$).did. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2006/09/22 08:57 |
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EAST Search History

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| S11 | 57 | (US-20060201056-\$ or US-20060155138-\$ or US-20060107972-\$ or US-20060063242-\$ or US-20060063241-\$ or US-20060063118-\$ or US-20060059768-\$ or US-20060058403-\$ or US-20060053791-\$ or US-20060021277-\$ or US-20050232956-\$ or US-20060008887-\$ or US-20050268535-\$ or US-20050142250-\$ or US-20050223627-\$ or US-20050172546-\$ or US-20050160663-\$ or US-20050081436-\$ or US-20050120620-\$ or US-20050113467-\$ or US-20050108927-\$ or US-20050107624-\$ or US-20050020842-\$ or US-20050011112-\$ or US-20040231233-\$ or US-20040186307-\$).did. or (US-20030111410-\$ or US-20020189243-\$).did. or (US-6982155-\$ or US-6288251-\$ or US-6887283-\$ or US-6824682-\$ or US-6694928-\$ or US-5705722-\$ or US-5730029-\$ or US-5609768-\$ or US-5578090-\$ or US-5527449-\$ or US-5434279-\$ or US-5269939-\$ or US-4828577-\$ or US-4608120-\$ or US-4518458-\$ or US-RE31185-\$ or US-4013621-\$ or US-4013516-\$ or US-3950230-\$).did. or (US-2980519-\$ or US-2862976-\$ or US-2249675-\$).did. or (WO-2005017075-\$ or EP-1357277-\$ or EP-1241406-\$ or WO-2068565-\$).did. or (JP-2005325323-\$ or JP-04222311-\$).did. AND vacuum | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | OFF | 2006/09/22 09:58 |
| S12 | 29 | S10 vacuum | US-PGPUB; USPAT; USOCR; EPO; JPO | AND | OFF | 2006/09/22 10:29 |
| S13 | 1 | ("7029506").PN. | USPAT; USOCR | OR | OFF | 2006/09/22 10:09 |
| S19 | 0 | ("10404409").PN. | US-PGPUB | OR | OFF | 2006/09/22 10:12 |

EAST Search History

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| S20 | 13 | S10 vacuum esterification | US-PGPUB; USPAT; USOCR; EPO; JPO | AND | OFF | 2006/09/22 10:29 |
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EAST Search History

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|-----|----|---|--------------------|----|-----|------------------|
| S21 | 99 | (US-20040186307-\$ or US-20050204612-\$ or US-20020147356-\$ or US-20050027137-\$ or US-20050120621-\$ or US-20060042158-\$ or US-20020035282-\$ or US-20030149289-\$ or US-20050085653-\$ or US-20050262760-\$ or US-20040265343-\$ or US-20030158074-\$ or US-20060183184-\$ or US-20030068428-\$ or US-20060094890-\$ or US-20030083514-\$).did. or (US-6608222-\$ or US-4303590-\$ or US-6965044-\$ or US-6277798-\$ or US-6248910-\$ or US-5928696-\$ or US-5495033-\$ or US-5703252-\$ or US-5849939-\$ or US-5244925-\$ or US-5399728-\$ or US-5627289-\$ or US-5434279-\$ or US-6342208-\$ or US-5336792-\$ or US-6306825-\$ or US-6423363-\$ or US-6468968-\$ or US-6251146-\$ or US-6258135-\$ or US-6270538-\$ or US-6293977-\$ or US-6129945-\$ or US-6399800-\$ or US-4810726-\$ or US-5405980-\$). did. or (US-5621148-\$ or US-6277423-\$ or US-6448212-\$ or US-6855838-\$ or US-6288251-\$ or US-6441206-\$ or US-5476517-\$ or US-5504162-\$ or US-4534981-\$ or US-4582927-\$ or US-4762522-\$ or US-4919923-\$ or US-6211390-\$ or US-6399081-\$ or US-6464962-\$ or US-4275011-\$ or US-5844111-\$ or US-6300377-\$ or US-6441050-\$ or US-5571935-\$ or US-6127561-\$ or US-6177580-\$ or US-5371255-\$ or US-5412127-\$ or US-6764708-\$ or US-4371470-\$ or US-5066509-\$). did. or (US-6325995-\$ or US-5520708-\$ or US-5578090-\$ or US-6293976-\$ or US-5525126-\$ or US-6111120-\$ or US-5624883-\$ or US-6090959-\$ or US-5399731-\$ or US-6162483-\$ or US-4975090-\$ or US-4897225-\$ or US-5736174-\$ or US-5616735-\$ or US-5646311-\$ or US-5670669-\$ or US-6359157-\$ or US-6642399-\$ or US-5362894-\$ or US-6290997-\$ or US-6291006-\$ or US-6379737-\$ or US-6458746-\$ or US-5492713-\$ or US-4432968-\$ or US-5366753-\$ or US-5431949-\$) did. or (US-5650157-\$ or US-4800045-\$ or US-5550770-\$) | US-PGPUB; USPAT | OR | OFF | 2006/09/22 11:32 |
|-----|----|---|--------------------|----|-----|------------------|

EAST Search History

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|-----|----|--|-------|----|-----|------------------|
| S22 | 82 | S21 and @ad<"20021108" | USPAT | OR | OFF | 2006/09/22 13:11 |
| S23 | 25 | S21 and @ad<"20021108" and vacuum and esterification | USPAT | OR | OFF | 2006/09/22 11:40 |

EAST Search History

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|-----|----|---|--------------------|----|-----|------------------|
| S24 | 99 | (US-20040186307-\$ or US-20050204612-\$ or US-20020147356-\$ or US-20050027137-\$ or US-20050120621-\$ or US-20060042158-\$ or US-20020035282-\$ or US-20030149289-\$ or US-20050085653-\$ or US-20050262760-\$ or US-20040265343-\$ or US-20030158074-\$ or US-20060183184-\$ or US-20030068428-\$ or US-20060094890-\$ or US-20030083514-\$).did. or (US-6608222-\$ or US-4303590-\$ or US-6965044-\$ or US-6277798-\$ or US-6248910-\$ or US-5928696-\$ or US-5495033-\$ or US-5703252-\$ or US-5849939-\$ or US-5244925-\$ or US-5399728-\$ or US-5627289-\$ or US-5434279-\$ or US-6342208-\$ or US-5336792-\$ or US-6306825-\$ or US-6423363-\$ or US-6468968-\$ or US-6251146-\$ or US-6258135-\$ or US-6270538-\$ or US-6293977-\$ or US-6129945-\$ or US-6399800-\$ or US-4810726-\$ or US-5405980-\$). did. or (US-5621148-\$ or US-6277423-\$ or US-6448212-\$ or US-6855838-\$ or US-6288251-\$ or US-6441206-\$ or US-5476517-\$ or US-5504162-\$ or US-4534981-\$ or US-4582927-\$ or US-4762522-\$ or US-4919923-\$ or US-6211390-\$ or US-6399081-\$ or US-6464962-\$ or US-4275011-\$ or US-5844111-\$ or US-6300377-\$ or US-6441050-\$ or US-5571935-\$ or US-6127561-\$ or US-6177580-\$ or US-5371255-\$ or US-5412127-\$ or US-6764708-\$ or US-4371470-\$ or US-5066509-\$). did. or (US-6325995-\$ or US-5520708-\$ or US-5578090-\$ or US-6293976-\$ or US-5525126-\$ or US-6111120-\$ or US-5624883-\$ or US-6090959-\$ or US-5399731-\$ or US-6162483-\$ or US-4975090-\$ or US-4897225-\$ or US-5736174-\$ or US-5616735-\$ or US-5646311-\$ or US-5670669-\$ or US-6359157-\$ or US-6642399-\$ or US-5362894-\$ or US-6290997-\$ or US-6291006-\$ or US-6379737-\$ or US-6458746-\$ or US-5492713-\$ or US-4432968-\$ or US-5366753-\$ or US-5431949-\$) did. or (US-5650157-\$ or US-4800045-\$ or US-5550770-\$) | US-PGPUB; USPAT | OR | OFF | 2006/09/22 13:11 |
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EAST Search History

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|-----|-------|---|-------|-----|-----|------------------|
| S25 | 34 | S24 and vacuum and (reduced pressure) | USPAT | OR | ON | 2006/09/25 11:18 |
| S26 | 2 | ((("6028215") or ("6069261"))).PN. | USPAT | OR | OFF | 2006/09/22 14:09 |
| S27 | 12893 | ((554/167,170,174) or (518/700, 713,714,717,718, 702andesterificationandvacuum(reducedpressure)andcatalyst)).CCLS. or ("44").CLAS. | USPAT | OR | OFF | 2006/09/22 14:17 |
| S28 | 12893 | ((554/167,170,174) or (518/700, 713,714,717,718, 702ANDESTERIFICATIONANDCATALYSTANDVACUUM)).CCLS. or ("44").CLAS. | USPAT | OR | OFF | 2006/09/22 14:17 |
| S29 | 385 | ((554/167,170,174) or (518/700, 713,714,717,718, 702ANDESTERIFICATIONANDCATALYSTANDVACUUM)).CCLS. | USPAT | OR | OFF | 2006/09/22 14:19 |
| S30 | 385 | ((554/167,170,174) or (518/700, 713,714,717,718, 702ANDESTERIFICATIONANDCATALYSTANDVACUUMVEGETABLEADJOILANIMALADJFAT)).CCLS. | USPAT | OR | OFF | 2006/09/22 14:20 |
| S31 | 493 | ((44/308,306) or (554/167,170,174) or (518/700,713,714,717,718, 702ANDESTERIFICATIONANDCATALYSTANDVACUUMVEGETABLEADJOILANIMALADJFAT)).CCLS. | USPAT | OR | OFF | 2006/09/22 16:24 |
| S32 | 493 | ((44/308,306) or (554/167,170,174) or (518/700,713,714,717,718, 702ANDESTERIFICATIONANDCATALYSTANDVACUUMVEGETABLEADJOILANIMALADJFAT)).CCLS. | USPAT | OR | OFF | 2006/09/25 08:00 |
| S33 | 3 | S32 ESTERIFICATION CATALYST VACUUM VEGETABLE ADJ OIL ANIMAL ADJ FAT | USPAT | AND | OFF | 2006/09/22 16:26 |
| S34 | 1917 | ((44/308,306) or (554/167,170,174) or (518/700,713,714,717,718,702)).CCLS. | USPAT | OR | OFF | 2006/09/25 08:00 |
| S37 | 1 | S34 esterification (polyvalent adj alcohol) | USPAT | AND | OFF | 2006/09/25 08:13 |
| S39 | 124 | S34 biodiesel or biofuel | USPAT | AND | OFF | 2006/09/25 08:16 |
| S40 | 16 | S34 biodiesel or biofuel polyvalent | USPAT | AND | ON | 2006/09/25 08:33 |
| S41 | 0 | S34 (biodiesel or biofuel) polyvalent | USPAT | AND | ON | 2006/09/25 08:33 |
| S42 | 2018 | polyvalent alcohol | USPAT | ADJ | ON | 2006/09/25 08:33 |
| S43 | 317 | S42 esterification | USPAT | AND | ON | 2006/09/25 08:34 |
| S44 | 138 | S42 esterification vacuum | USPAT | AND | ON | 2006/09/25 09:13 |

EAST Search History

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|-----|------|--|-------------------------|-----|-----|------------------|
| S46 | 7 | S42 esterification vacuum (animal adj fat) | USPAT | AND | ON | 2006/09/25 09:17 |
| S47 | 6 | ((("2383601") or ("2415140") or ("4164506") or ("6013817"))).PN. | USPAT; USOCR | OR | OFF | 2006/09/25 09:34 |
| S48 | 3 | ((("6069261") or ("6818026") or ("5399731"))).PN. | USPAT; USOCR | OR | OFF | 2006/09/25 10:07 |
| S49 | 3 | ((("6028215") or ("6069261") or ("4491528"))).PN. | USPAT; USOCR | OR | OFF | 2006/09/25 10:07 |
| S50 | 943 | fuel and ((animal adj fat) (waste adj fat) (rendering adj fat) (oil adj trap) (sewage adj plant) (fish adj oil)) | USPAT | OR | ON | 2006/09/25 13:22 |
| S51 | 167 | S50 esterification | USPAT | AND | ON | 2006/09/25 13:22 |
| S52 | 129 | S51 catalyst | USPAT | AND | ON | 2006/09/25 13:23 |
| S53 | 19 | S52 apparatus | USPAT | AND | ON | 2006/09/25 14:00 |
| S54 | 1 | S52 apparatus countercurrent | USPAT | AND | ON | 2006/09/25 15:31 |
| S55 | 1155 | (422/129,234).CCLS. | USPAT; USOCR | OR | OFF | 2006/09/25 15:31 |
| S56 | 14 | S55 esterification | USPAT | AND | OFF | 2006/09/25 15:40 |
| S57 | 49 | S55 countercurrent | USPAT | AND | OFF | 2006/09/25 15:40 |
| S58 | 11 | S55 countercurrent vacuum | USPAT | AND | OFF | 2006/09/26 10:56 |
| S59 | 23 | S55 countercurrent catalyst | USPAT | AND | OFF | 2006/09/25 16:26 |
| S60 | 0 | wo-0005327-\$.did. | USPAT | AND | OFF | 2006/09/25 16:32 |
| S61 | 0 | wo-0005327-A.did. | USPAT | AND | OFF | 2006/09/25 16:32 |
| S62 | 0 | wo-0112581-\$.did. | USPAT | AND | OFF | 2006/09/25 16:32 |
| S63 | 2 | ((("6028215") or ("6069261"))).PN. | USPAT; USOCR | OR | OFF | 2006/09/26 09:55 |
| S64 | 1155 | (422/129,234).CCLS. | USPAT; USOCR | OR | OFF | 2006/09/26 09:56 |
| S65 | 0 | S64 column catalyst spiral | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 09:56 |
| S66 | 102 | S64 column catalyst | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 09:56 |
| S67 | 55 | S64 column catalyst arrange\$4 | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 10:22 |
| S68 | 5 | S64 column catalyst arrange\$4 esterification | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 09:57 |

EAST Search History

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| S69 | 7 | S64 column catalyst esterification | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 10:41 |
| S70 | 2365 | zinc catalyst (spiral or spinal) | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 10:51 |
| S71 | 683 | S70 (fatty adj acid) | USPAT; USOCR; EPO | AND | ON | 2006/09/26 10:42 |
| S72 | 117 | S71 esterification | USPAT; USOCR; EPO | AND | ON | 2006/09/26 10:43 |
| S73 | 93 | S72 (apparatus or device) | USPAT; USOCR; EPO | AND | ON | 2006/09/26 10:44 |
| S74 | 1919 | ((44/308,306) or (554/167,170,174) or (518/700,713,714,717,718,702)). CCLS. | USPAT | OR | OFF | 2006/09/26 10:44 |
| S76 | 0 | S72 (44/308,306 554/167,170,174 518/700,713,714,717,718,702.ccls.) | USPAT; USOCR; EPO | AND | ON | 2006/09/26 10:45 |
| S77 | 7 | S74 zinc catalyst (spiral or spinal) | USPAT; USOCR; EPO | AND | ON | 2006/09/26 10:50 |
| S79 | 1326 | zinc catalyst spiral | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 10:52 |
| S80 | 36 | S79 (fatty adj acid) esterification | USPAT; USOCR; EPO | AND | OFF | 2006/09/26 10:52 |
| S81 | 7 | S64 (counter with current) (vacuum or pump) bed | USPAT | AND | OFF | 2006/09/27 14:24 |
| S82 | 11 | S64 (counter with current) (vacuum or pump) bed | USPAT; USOCR; EPO | AND | ON | 2006/09/26 11:06 |
| S83 | 0 | fuel (animal adj fat) (apparatus or device) esterification (counter with current) (vacuum or pump) bed | USPAT; USOCR; EPO | AND | ON | 2006/09/26 11:06 |
| S84 | 2 | fuel (animal adj fat) (apparatus or device) esterification (counter with current) (vacuum or pump) | USPAT; USOCR; EPO | AND | ON | 2006/09/26 11:24 |
| S85 | 9 | ("508940") or ("4698186") or ("3692822") or ("6211390") or ("4112235") or ("6013817") or ("5908946") or ("5424466") or ("5183930")).PN. | USPAT; USOCR | OR | OFF | 2006/09/26 14:14 |

EAST Search History

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|------|-------|--|--------------------------------|-----|-----|------------------|
| S86 | 72868 | ester and (polyvalent polyol multivalent divalent) and alcohol | USPAT | OR | ON | 2006/09/26 14:15 |
| S87 | 13325 | esterification and (polyvalent polyol multivalent divalent) and alcohol | USPAT | OR | ON | 2006/09/26 14:15 |
| S88 | 15171 | esterification and (polyvalent polyol multivalent divalent) | USPAT | OR | ON | 2006/09/26 14:15 |
| S89 | 13325 | esterification (polyvalent or polyol or multivalent or divalent) alcohol | USPAT | AND | ON | 2006/09/26 14:16 |
| S90 | 10181 | esterification (polyvalent or polyol or multivalent) alcohol | USPAT | AND | ON | 2006/09/26 14:16 |
| S91 | 5434 | esterification (polyvalent or polyol or multivalent) alcohol (fatty adj acid) | USPAT | AND | ON | 2006/09/26 14:16 |
| S92 | 246 | esterification (polyvalent or polyol or multivalent) alcohol (fatty adj acid) (animal adj fat) | USPAT | AND | ON | 2006/09/26 14:17 |
| S93 | 88 | esterification (polyvalent or polyol or multivalent) alcohol (fatty adj acid) (animal adj fat) reactor | USPAT | AND | ON | 2006/09/26 14:18 |
| S94 | 91 | esterification (polyvalent or polyol or multivalent) (fatty adj acid) (animal adj fat) reactor | USPAT | AND | ON | 2006/09/26 14:26 |
| S97 | 67 | esterification (polyvalent or polyol or multivalent) (fatty adj acid) (animal adj fat) (fuel or diesel) | USPAT | AND | ON | 2006/09/26 14:32 |
| S98 | 62 | esterification (polyvalent or polyhydric or multivalent) (fatty adj acid) (animal adj fat) (fuel or diesel) | USPAT | AND | ON | 2006/09/26 16:54 |
| S99 | 1 | ("5157168").PN. | USPAT; USOCR | OR | OFF | 2006/09/26 16:54 |
| S100 | 1 | ("6224642").PN. | USPAT; USOCR | OR | OFF | 2006/09/27 08:06 |
| S101 | 1 | ("4491529").PN. | USPAT; USOCR | OR | OFF | 2006/09/27 08:06 |
| S102 | 1 | ("4491528").PN. | USPAT; USOCR | OR | OFF | 2006/09/27 08:15 |
| S103 | 807 | esterification (polyvalent or polyhydric or multivalent or multihydric) (fatty adj acid adj ester) catalyst (vacuum or (reduced adj pressure)) | USPAT; EPO; JPO; DERWENT | AND | ON | 2006/09/27 08:17 |
| S104 | 17 | esterification (polyvalent or polyhydric or multivalent or multihydric) (fatty adj acid adj ester) catalyst (vacuum or (reduced adj pressure)) (counter adj current) | USPAT; EPO; JPO; DERWENT | AND | ON | 2006/09/29 11:25 |

EAST Search History

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| S10 5 | 536 | esterification (counter adj current) | USPAT; EPO; JPO; DERWENT | AND | ON | 2006/09/27 11:09 |
| S10 6 | 370 | esterification (counter adj current) (vacuum or (reduced adj pressure)) | USPAT; EPO; JPO; DERWENT | AND | ON | 2006/09/27 11:10 |
| S10 7 | 18 | esterification (counter adj current) (vacuum or (reduced adj pressure)) catalyst (fixed adj bed) | USPAT; EPO; JPO; DERWENT | AND | ON | 2006/09/27 11:10 |
| S10 8 | 1155 | (422/129,234).CCLS. | USPAT; USOCR | OR | OFF | 2006/09/27 14:24 |
| S10 9 | 8 | S108 (counter with current) (vacuum or pump) bed | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/27 14:26 |
| S11 0 | 2 | ((("3960978") or ("4021502"))).PN. | USPAT; USOCR | OR | OFF | 2006/09/27 15:10 |
| S11 1 | 1 | ("5157168").PN. | USPAT; USOCR | OR | OFF | 2006/09/27 15:11 |
| S11 2 | 3 | ((("4973681") or ("0792011"))).PN. | USPAT; USOCR; EPO | OR | OFF | 2006/09/27 15:13 |
| S11 3 | 9 | ((("4973681") or ("0792011") or ("2843492"))).PN. | USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2006/09/27 15:27 |
| S11 4 | 302 | esterification vacuum (fatty adj acid) fuel catalyst ((ethylene adj glycol) or glycerine) | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/28 08:48 |
| S11 5 | 1 | S114 (counter adj current) | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/28 08:19 |
| S11 6 | 494 | ((44/308,306) or (554/167,170,174) or (518/700,713,714,717,718, 702ANDESTERIFICATIONANDCATA LYSTANDVACUUMVEGETABLEADJO ILANIMALADJFAT)).CCLS. | USPAT | OR | OFF | 2006/09/27 15:39 |
| S11 7 | 3 | esterification vacuum (fatty adj acid) fuel catalyst ((ethylene adj glycol) or glycerine) S116 | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/27 15:39 |
| S11 8 | 302 | esterification vacuum (fatty adj acid) fuel catalyst ((ethylene adj glycol) or glycerine) | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/28 08:55 |

EAST Search History

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| S11 9 | 2 | S118 (counter with current) | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/28 08:19 |
| S12 0 | 2 | ("3273981").PN. | USPAT; USOCR | OR | OFF | 2006/09/28 08:49 |
| S12 1 | 132 | esterification vacuum (fatty adj acid) fuel catalyst ((ethylene adj glycol) or glycerine) NOT monohydric | USPAT; USOCR; EPO; JPO; DERWENT | AND | OFF | 2006/09/28 10:47 |
| S12 2 | 26 | (counter with current) reactor (fatty adj acid adj ester) polyhydric | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/09/29 08:29 |
| S12 3 | 6 | (fatty adj acid adj ester) fuel (polyhydric same monohydric same advantage) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/09/29 08:40 |
| S12 4 | 1 | (fatty adj acid adj ester) fuel (polyhydric with advantage) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/09/29 08:41 |
| S12 5 | 72 | (animal adj fat) fuel (polyhydric adj alcohol) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/09/29 08:42 |
| S12 6 | 14 | (animal adj fat) fuel (polyhydric adj alcohol) (free adj fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/09/29 09:35 |
| S12 7 | 15 | ((("2268234") or ("2412633") or ("2564423") or ("2528941") or ("2671444") or ("2788326") or ("4505829") or ("2038355")).PN. | USPAT; USOCR | OR | OFF | 2006/09/29 09:35 |
| S12 8 | 3 | ((("3028215") or ("6069261") or ("2001042340")).PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2006/09/29 13:49 |
| S12 9 | 1 | de-10155241-\$.did. | EPO; DERWENT | OR | OFF | 2006/09/29 13:56 |
| S13 0 | 0 | wo-00112581-\$.did. | EPO; DERWENT | OR | OFF | 2006/09/29 13:57 |
| S13 1 | 2 | ("5425497").PN. | USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2006/10/02 09:52 |

EAST Search History

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|----------|------|--|--|-----|-----|------------------|
| S13 2 | 419 | (vacuum adj pump) (stripper or reactor) esterification | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/02 10:11 |
| S13 4 | 39 | (vacuum adj pump) (stripper or reactor) esterification fuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/02 12:56 |
| S13 5 | 1664 | esterification (fatty adj acid) (glycerine or (ethylene adj glycol) or pentaerythritol or multihydric or multivalent) column vacuum catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/02 14:01 |
| S13 6 | 75 | S135 countercurrent | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:54 |
| S13 7 | 1 | ("6620952").PN. | USPAT; USOCR | OR | OFF | 2006/10/02 15:17 |
| S13 8 | 1 | ("20060075680").PN. | US-PGPUB | OR | OFF | 2006/10/02 15:17 |
| S13 9 | 1667 | esterification (fatty adj acid) (glycerine or (ethylene adj glycol) or pentaerythritol or multihydric or multivalent) column vacuum catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 15:51 |
| S14 0 | 8 | S139 (neutral adj catalyst) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:56 |
| S14 1 | 0 | ((neutral adj catalyst) same advantage)(fatty adj acid) esterification | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:57 |
| S14 2 | 0 | (neutral adj catalyst)(fatty adj acid) esterification column fuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:58 |
| S14 3 | 0 | (neutral adj catalyst)(fatty adj acid) esterification column | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:58 |
| S14 4 | 1 | (neutral adj catalyst)(fatty adj acid) esterification | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 10:58 |

EAST Search History

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|----------|------|--|--|-----|-----|------------------|
| S14 5 | 19 | (catalyst not charge)(fatty adj acid) esterificaton | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 11:36 |
| S14 6 | 1 | ("6812359").PN. | USPAT; USOCR | OR | OFF | 2006/10/03 11:37 |
| S14 7 | 1 | ("5536856").PN. | USPAT; USOCR | OR | OFF | 2006/10/03 11:58 |
| S14 8 | 1 | ("5157168").PN. | USPAT; USOCR | OR | OFF | 2006/10/03 12:34 |
| S14 9 | 1 | ("4973681").PN. | USPAT; USOCR | OR | OFF | 2006/10/03 14:38 |
| S15 1 | 963 | esterification (fatty adj acid adj ester) (citric adj acid) catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 14:39 |
| S15 2 | 5 | S151 remove remnants | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 14:40 |
| S15 3 | 246 | S151 column washing | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 14:41 |
| S15 4 | 19 | S153 fuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 14:44 |
| S15 5 | 59 | ((citric adj acid) with washing) esterification (fatty adj acid) catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 14:58 |
| S15 6 | 1 | ("6069261").PN. | USPAT; USOCR | OR | OFF | 2006/10/03 15:33 |
| S15 7 | 1 | S155 neutralize | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 15:33 |
| S15 8 | 1667 | esterification (fatty adj acid) (glycerine or (ethylene adj glycol) or pentaerythritol or multihydric or multivalent) column vacuum catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 08:59 |
| S15 9 | 114 | S158 diesel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 15:52 |

EAST Search History

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|----------|----|--|---|-----|----|------------------|
| S16 0 | 0 | S159 CHP | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 15:52 |
| S16 1 | 84 | S159 engine | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/03 15:52 |
| S16 2 | 55 | (US-20060155138-\$ or US-20060058403-\$ or US-20060063118-\$ or US-20060059768-\$ or US-20050172546-\$ or US-20050160663-\$ or US-20050268535-\$ or US-20050223627-\$ or US-20050120620-\$ or US-20050142250-\$ or US-20050113467-\$ or US-20050108927-\$ or US-20040231233-\$ or US-20020189243-\$).did. or (US-6982155-\$ or US-6887283-\$ or US-6288251-\$ or US-6824682-\$ or US-5578090-\$ or US-5434279-\$ or US-5609768-\$ or US-5527449-\$ or US-5525126-\$ or US-5269939-\$ or US-4828577-\$ or US-RE31185-\$ or US-4013621-\$ or US-4013516-\$ or US-3950230-\$ or US-5399731-\$ or US-6028215-\$ or US-6927299-\$ or US-6069261-\$ or US-6818026-\$ or US-6147196-\$ or US-5908946-\$ or US-6616909-\$ or US-6316646-\$ or US-6046263-\$ or US-4491528-\$). did. or (US-5277878-\$ or US-5157168-\$ or US-5167937-\$ or US-5008088-\$ or US-5880072-\$ or US-5055571-\$).did. or (US-2980519-\$ or US-2862976-\$ or US-2249675-\$).did. or (WO-2005017075-\$ or EP-1357277-\$ or WO-2058565-\$ or EP-1241406-\$).did. or (JP-2005325323-\$ or JP-04222311-\$).did. | US-PGPUB; USPAT; USOCR; EPO; JPO | OR | ON | 2006/10/03 16:33 |
| S16 3 | 18 | S162 (engine or diesel) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:05 |

EAST Search History

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|----------|------|--|--|-----|----|------------------|
| S16 4 | 0 | cogeneration biodiesel engine power (fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:05 |
| S16 7 | 1 | S166 biodiesel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:06 |
| S16 8 | 10 | S166 biofuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:16 |
| S16 9 | 10 | combustible power and heat | USPAT; USOCR; EPO; JPO; DERWENT | ADJ | ON | 2006/10/04 08:54 |
| S17 0 | 0 | S166 (animal adj fat) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:54 |
| S17 1 | 2044 | cogeneration @ad<"20011109" | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:57 |
| S17 2 | 1144 | S171 fuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 09:06 |
| S17 3 | 1 | S172 fat vegetable animal | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:58 |
| S17 4 | 4 | S172 fat | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 08:58 |
| S17 5 | 190 | S172 diesel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 09:17 |
| S17 6 | 0 | S175 fats | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 09:17 |
| S17 7 | 6 | S175 animal | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/04 12:33 |

EAST Search History

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|------|------|--|--|-----|----|------------------|
| S178 | 0 | jp-4787709-\$.did. | JPO | AND | ON | 2006/10/04 12:33 |
| S179 | 0 | jp-47087709-\$.did. | JPO | AND | ON | 2006/10/04 12:33 |
| S180 | 0 | jp-04787709-\$.did. | JPO | AND | ON | 2006/10/04 12:33 |
| S181 | 944 | fuel and ((animal adj fat) (waste adj fat) (rendering adj fat) (oil adj trap) (sewage adj plant) (fish adj oil)) | USPAT | OR | ON | 2006/10/05 08:58 |
| S182 | 167 | S181 esterification | USPAT | AND | ON | 2006/10/05 08:58 |
| S183 | 129 | S182 catalyst | USPAT | AND | ON | 2006/10/05 08:58 |
| S185 | 1667 | esterification (fatty adj acid) (glycerine or (ethylene adj glycol) or pentaerythritol or multihydric or multivalent) column vacuum catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 08:59 |
| S186 | 28 | S185 spiral | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:04 |
| S187 | 0 | S185 (catalyst with spiral) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:04 |
| S188 | 0 | S185 (catalyst near spiral) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:04 |
| S189 | 2 | S185 (catalyst same spiral) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:06 |
| S190 | 0 | esterification (fatty adj acid) (spiral near catalyst) (animal adj fat) column | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:07 |
| S191 | 0 | esterification (fatty adj acid) (spiral near catalyst) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:07 |
| S192 | 16 | esterification (fatty adj acid) (spiral same catalyst) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:09 |

EAST Search History

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|----------|------|---|--|-----|-----|------------------|
| S19 3 | 18 | esterification (zinc same spiral) catalyst | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:13 |
| S19 4 | 4 | esterification (catalyst near (spiral or heli\$4 or coil or curl)) (fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:26 |
| S19 5 | 9 | esterification (catalyst near (spiral or heli\$4 or coil or curl)) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:26 |
| S19 6 | 1 | cogeneration biodiesel engine power | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:13 |
| S19 7 | 22 | NOORDEN.in. | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 09:55 |
| S19 8 | 23 | generation power diesel engine biofuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 10:31 |
| S19 9 | 6 | (cogeneration or co-generation) diesel engine biofuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 10:42 |
| S20 0 | 1 | ("6187939").PN. | USPAT; USOCR | OR | OFF | 2006/10/05 10:42 |
| S20 1 | 10 | cogeneration (biofuel or biodiesel) | USPAT; USOCR | AND | ON | 2006/10/05 12:37 |
| S20 2 | 118 | piacentini.in. niesner.in. | USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2006/10/05 12:40 |
| S20 3 | 2833 | piacintini,.aldo.in. | USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2006/10/05 12:40 |
| S20 4 | 2 | piacentini-aldo.in. | USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2006/10/05 12:43 |
| S20 5 | 2 | niesner-rene.in. | USPAT; USOCR; EPO; JPO; DERWENT | OR | ON | 2006/10/05 12:44 |

EAST Search History

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|----------|------|---|--|------|----|------------------|
| S20 6 | 1 | catalyst (spiral or helical or helix or curl or coil) shape | USPAT; USOCR; EPO; JPO; DERWENT | NEAR | ON | 2006/10/05 14:37 |
| S20 7 | 1225 | catalyst (spiral or helical or helix or curl or coil) shape | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/05 13:41 |
| S20 8 | 15 | S207 esterif\$7 | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/05 13:42 |
| S21 0 | 422 | esterification catalyst (fatty adj acid) (animal adj fat) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 08:36 |
| S21 1 | 2 | S210 (catalyst near arrange\$4) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 08:37 |
| S21 2 | 1231 | diesel engine (vegetable adj oil) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 14:55 |
| S21 3 | 7 | S212 cogeneration | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 14:57 |
| S21 4 | 6 | S213 (biofuel or biodiesel) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 15:05 |
| S21 5 | 61 | S212 (biodiesel or biofuel) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 15:07 |
| S21 6 | 3 | S215 (generat\$3 near (heat or power)) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/05 15:08 |
| S21 7 | 422 | esterification catalyst (fatty adj acid) (animal adj fat) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 08:38 |
| S21 8 | 60 | S217 (coil\$3 or curl\$3 or spiral) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 08:55 |

EAST Search History

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|----------|-----|--|--|------|-----|------------------|
| S21 9 | 0 | S218 (catalyst near (coil\$3 or curl\$3 or spiral)) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 08:56 |
| S22 0 | 8 | S218 (catalyst same coil) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 09:03 |
| S22 1 | 546 | esterification catalyst (spiral or shape or arrange\$4) | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 09:04 |
| S22 2 | 25 | esterification catalyst (spiral or shape or arrange\$4) | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/06 10:41 |
| S22 3 | 0 | (neutralized adj fat) (cogeneration or (diesel adj engine) or (combined adj heat)) | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/06 10:42 |
| S22 4 | 1 | ("5908946").PN. | USPAT; USOCR | OR | OFF | 2006/10/06 11:26 |
| S22 5 | 2 | ((("5008046") or ("5525126"))).PN. | USPAT; USOCR | OR | OFF | 2006/10/06 11:56 |
| S22 6 | 159 | cogeneration (diesel adj engine) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 11:56 |
| S22 7 | 2 | S226 fats | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 11:58 |
| S22 8 | 10 | ((("2510572") or ("2847825") or ("4472935") or ("4854853") or ("4907406") or ("4916904") or ("5088450") or ("6439682"))).PN. | USPAT; USOCR | OR | OFF | 2006/10/06 12:02 |
| S22 9 | 641 | (60/645,670).CCLS. | USPAT; USOCR | OR | OFF | 2006/10/06 12:03 |
| S23 1 | 15 | S229 cogeneration | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:06 |
| S23 3 | 0 | S229 (biofuel or biodiesel) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:05 |

EAST Search History

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|----------|-----|--|--|------|-----|------------------|
| S23 4 | 14 | S231 fuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:06 |
| S23 6 | 7 | S235 fuel fat | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:17 |
| S23 7 | 10 | S235 biofuel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:20 |
| S23 8 | 1 | S235 biodiesel | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 12:20 |
| S23 9 | 4 | ((("4275311") or ("4527071") or ("4503337") or ("4752697"))).PN. | USPAT; USOCR | OR | OFF | 2006/10/06 14:09 |
| S24 0 | 0 | biodiesel (reuse or recycle) heat engine | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/06 14:10 |
| S24 1 | 0 | biodiesel (reuse or recycle) heat engine | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 14:10 |
| S24 2 | 9 | biodiesel (reuse or recycle) heat engine | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:06 |
| S24 3 | 11 | ((("3326956") or ("4339546") or ("4705673") or ("4919912") or ("5427762") or ("5861051") or ("6114400") or ("6133328") or ("6299774") or ("6340581"))).PN. | USPAT; USOCR | OR | OFF | 2006/10/06 14:20 |
| S24 4 | 0 | biodiesel ((reuse or recycle) with heat) engine | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:07 |
| S24 5 | 1 | biodiesel ((reuse or recycle) with heat) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:07 |
| S24 6 | 566 | diesel ((reuse or recycle) with heat) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:07 |

EAST Search History

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|----------|-----|--|--|------|----|------------------|
| S24 7 | 1 | S246 (combined adj heat near power) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:09 |
| S24 8 | 255 | S246 engine | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:09 |
| S24 9 | 16 | S248 ester | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 15:55 |
| S25 0 | 119 | esterification catalyst (surface adj area) | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 15:56 |
| S25 1 | 9 | S250 (fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 15:58 |
| S25 2 | 2 | S250 arrangement | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 16:00 |
| S25 3 | 8 | S250 (zinc or Zn) | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 16:13 |
| S25 4 | 1 | S253 wire | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/06 16:00 |
| S25 5 | 0 | S250 (zinc or Zn) wire | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 16:13 |
| S25 6 | 181 | esterification catalyst wire | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/06 16:13 |
| S25 7 | 10 | esterification catalyst wire | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/06 16:24 |
| S25 8 | 10 | esterification catalyst shape | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 08:01 |

EAST Search History

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|------|------|--|--|------|----|------------------|
| S259 | 5811 | metal catalyst esterification | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/10 08:03 |
| S260 | 1555 | metal catalyst esterification | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 08:03 |
| S261 | 28 | metal catalyst esterification | USPAT; USOCR; EPO; JPO; DERWENT | NEAR | ON | 2006/10/10 08:09 |
| S262 | 0 | metal catalyst esterification wire | USPAT; USOCR; EPO; JPO; DERWENT | NEAR | ON | 2006/10/10 08:09 |
| S263 | 94 | metal catalyst esterification wire | USPAT; USOCR; EPO; JPO; DERWENT | SAME | ON | 2006/10/10 08:43 |
| S264 | 21 | S263 (fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/10 08:16 |
| S265 | 314 | metal catalyst esterification zinc | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 08:36 |
| S266 | 0 | S265 wire | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 08:36 |
| S267 | 22 | S265 wire | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/10 08:36 |
| S268 | 1178 | wire metal catalyst | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 08:43 |
| S269 | 82 | wire metal catalyst (coil\$3 or spiral or wound) | USPAT; USOCR; EPO; JPO; DERWENT | WITH | ON | 2006/10/10 10:49 |
| S270 | 0 | S269 esterification | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/10 10:38 |

EAST Search History

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|----------|---|-----------------------|--|-----|-----|------------------|
| S27 1 | 0 | S269 (fatty adj acid) | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/10 10:39 |
| S27 2 | 2 | S269 ester | USPAT; USOCR; EPO; JPO; DERWENT | AND | ON | 2006/10/10 10:39 |
| S27 3 | 1 | ("4289657").PN. | USPAT; USOCR | OR | OFF | 2006/10/10 10:49 |